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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|---------------------------------|----------------------|---------------------|------------------|
| 09/832,397 | 04/10/2001 Noam A. Ziv | | PA190C1 | 8544 |
| | 7590 04/10/2008 INCORPORATED | 8 | EXAMINER | |
| 5775 MOREHO | OUSE DR. | | D AGOSTA, STEPHEN M | |
| SAN DIEGO, O | A 92121 | | ART UNIT | PAPER NUMBER |
| | | | 2617 | |
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| | | | NOTIFICATION DATE | DELIVERY MODE |
| | | | 04/10/2008 | ELECTRONIC |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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us-docketing@qualcomm.com kascanla@qualcomm.com nanm@qualcomm.com

| | | Applicat | tion No. | Applicant(s) | | |
|---|--|---|---|--|-------------|--|
| Office Action Summary | | 09/832,3 | 397 | ZIV ET AL. | | |
| | | Examine | er | Art Unit | | |
| | | Stephen | M. D'Agosta | 2617 | | |
| Period fo | - The MAILING DATE of this communi r Reply | cation appears on th | he cover sheet with the | correspondence ad | ddress | |
| A SHO WHIC - Exten after 9 - If NO - Failur Any re | DRTENED STATUTORY PERIOD FOR HEVER IS LONGER, FROM THE MASSIONS OF THE MASSION | AILING DATE OF T of 37 CFR 1.136(a). In no e unication. tutory period will apply and will, by statute, cause the ap | THIS COMMUNICATION EVENT, however, may a reply be to will expire SIX (6) MONTHS from the polication to become ABANDON | N. imely filed in the mailing date of this of ED (35 U.S.C. § 133). | · | |
| Status | | | | | | |
| 2a)⊠ 3)□ | Responsive to communication(s) filed This action is FINAL . 2 Since this application is in condition to closed in accordance with the practic | b) This action is for allowance excep | ot for formal matters, p | | e merits is | |
| Dispositi | on of Claims | | | | | |
| 5)□ 6)⊠ 7)□ 8)□ Applicati c | Claim(s) <u>28-37</u> is/are pending in the fa) Of the above claim(s) is/are Claim(s) is/are allowed. Claim(s) <u>28-37</u> is/are rejected. Claim(s) is/are objected to. Claim(s) are subject to restrict on Papers The specification is objected to by the Grawing(s) filed on is/are: | e withdrawn from o | requirement. | Examiner. | | |
| | Applicant may not request that any object Replacement drawing sheet(s) including The oath or declaration is objected to | the correction is requ | ired if the drawing(s) is o | bjected to. See 37 C | | |
| Priority u | nder 35 U.S.C. § 119 | | | | | |
| 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. | | | | | | |
| 2) Notice 3) Inform | (s) e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (Pination Disclosure Statement(s) (PTO/SB/08) No(s)/Mail Date | ГО-948) | 4) Interview Summar Paper No(s)/Mail [5) Notice of Informal 6) Other: | Date | | |

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DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

- 1. A new rejection is found below since the scope of the claims was modified (eg. added new limitations to the independent claims, eg. tones and routing of tones).
- 2. The examiner notes that this application will require a <u>Terminal Disclaimer</u> since it's scope reads on parent application (now patent) US 6,292,662.

Please complete and send in a Terminal Disclaimer with any response. Thank you.

3. Can the applicant please re-send the IDS so that it can be re-signed. The original is not in the PTO file and this (new) examiner would appreciate the opportunity to review it and sign it. Thank you.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

<u>Claims 28-37</u> rejected under 35 U.S.C. 103(a) as being unpatentable over Kotzin and further in view of Roach and {Sammarco or Dahlin}.

As per claims 28, 31, 33 and 35, Kotzin teaches a method for processing a telephone call from a first subscriber unit that is part of a first wireless telephone system

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(figure 2 shows mobile users/infrastructure connecting to wired users via PSTN), the method comprising:

receiving a request to make the telephone call to a second subscriber unit (figure 2 shows that wireless users can connect to wired users and vice versa);

determining whether the second subscriber unit is part of the first wireless telephone system AND routing "voice" data from the first subscriber unit to the second subscriber unit within the first wireless telephone system if the second subscriber unit is part of the first wireless telephone system (figure 2 shows that wireless/wired users can call each other and inherently requires any/all routing and signal translation; and

converting the voice data and routing the tones through a wire-based telephone system to the second subscriber unit if the second subscriber unit is part of a second wireless telephone system:

(14) Access by an MS to a local BTS may allow the MS telephony access to a communication target, such as another MS, served by the same, or another BTS, or to a subscriber within a public switched telephone network (PSTN). Access by the MS to a local BTS may also provide the MS access to a diversity of other data services.

In general, communication access is provided to the MS through a cellular infrastructure system which, in the case of a PSTN target, may include the BTS, a base station controller (BSC), a mobile switching center (MSC), and the PSTN network. Under GSM, a BSC may control a number of BTSs. An MSC, connected to the PSTN network, may control a number of BSCs. (C2, L58 to C3, L3).

But is silent on vocoders and conversion to tones.

The examiner notes that cellular systems began as analog systems and migrated to digital. The PSTN is analog and thus would require a "translating/conversion" if when a wireless caller is connecting to a wired caller (or vice versa). The vocoder (eg. voice coder/decoder) is a well known component which translates/codes the human voice

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from analog into an encoded signal with a certain number of bits/resolution and would be used by the mobile phone to convert the human voice for RF transmission, but a translation would be needed in order to route the signal to/from the PSTN.

While the above is notoriously well known in the art, the examiner puts forth both Sammarco or Dahlin:

- a. Sammarco who teaches wired-to-wireless connectivity (C2, L21-35 teaches "..when a wireine subscriber calls a mobile subscriber, the call is directed from the PSTN to the MSC...") as well as Digital/Analog Cell Phones and use of "coders" (eg. vocoders) C2, 60 to C3, L48.
- b. **Dahlin** teaches wireless-to-wired connections and use of DTMF tones/conversion (see figures 4 and 6 and use/conversion to DTMF in C7, L61 to C8, L14).

Roach teaches a wireless digital network whereby conversion is performed to route calls between wired and wireless users (eg. translation, signaling, etc. is performed), see Abstract and figures. Roach also teaches explicit use of vocoders (C13, L1-38).

It would have been obvious to one skilled in the art at the time of the invention to modify Kotzin, such that vocoders and conversion to tones is supported, to provide means for connecting wired and wireless users together.

With further regard to claim 33, the prior art above teaches connections to the PSTN which supports either local or long distance calling.

As per **claims 29 and 36**, the combo teaches claim 28/35, wherein converting and routing further comprising: signaling to the second wireless system that the vocoded data will be transmitted in tones (both Sammarco and Dahlin teach use of coding/vocoding and handshake/signaling would <u>inherently</u> be required to establish the link as well as setup any/all parameters needed for optimal communication, eg. type of signal, channel rate, etc., which reads on the claim).

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As per claims 30, 32, 34 and 37, the combo teaches claim 28/31/32/35, but is silent on wherein converting and routing further comprising: establishing an all digital (or ATM) link to the second wireless telephone system; and delivering the vocoded data to the second wireless system over the all digital (or ATM) link.

The examiner takes Official Notice that use of different links is well known and one skilled can select analog, digital, different rates, different transmission protocols such as T1/T3, Sonet, ATM, IP-based, TDMA/FDMA, etc.. Hence an all digital link would be used by one skilled.

Note that the prior art of record teaches myriad ways/designs in which to transmit/receive data (ISDN, RF, TDMA/FDMA, cellular, etc.)>

It would have been obvious to one skilled in the art at the time of the invention to modify the combo, such that an all digital/ATM link is established, to provide means for supporting the transmission of data to/from users via many different conveyances, eg. analog/digital, different protocols, etc..

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. D'Agosta whose telephone number is 571-272-7862. The examiner can normally be reached on M-F, 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Trost can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Stephen M. D'Agosta/ Primary Examiner, Art Unit 2617